



PATENT
Attorney Docket No. **UM-08410**


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Samir M. Hanash
Serial No.: 10/686,417
Filed: 10/15/2003
Entitled: **Multidimensional Protein Separation System**

Group No.: 1641
Examiner: Nelson C. Yang

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

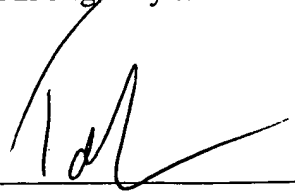
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| Date: <u>June 19, 2006</u> | By: <u></u> Jennifer B. Xistris |

Sir or Madam:

Enclosed please find a **Information Disclosure Statement** and Form PTO-1449, in the above-identified application, for filing in the U.S. Patent Office.

Enclosed is a check in the amount of **\$180.00** to cover the fee to file an Information Disclosure Statement. The Commissioner is hereby authorized to charge any additional fee or credit overpayment to our Deposit Account No. 08-1290. An originally executed duplicate of this transmittal is enclosed for this purpose.

Dated: June 19, 2006


Tanya A. Arenson
Registration No. 47,391
MEDLEN & CARROLL, LLP
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Jennifer B. Xistris

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|---|

Sir or Madam:

The citations listed below may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97. The Examiner is requested to make these citations of official record in this application.

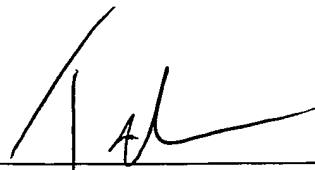
- 6,387,707 05/14/2002 Seul, et al
- 6,328,869 12/11/2001 Ogle
- 6,328,868 12/11/2001 Weber
- 6,387,628 05/14/2002 Little, et al
- 6,281,493 08/28/2001 Vestal, et al
- 6,002,127 12/14/1999 Vestal, et al
- 5,572,025 11/05/1996 Cotter, et al
- 5,696,376 12/09/1997 Doroshenko, et al

- 5,399,857 03/21/1995 Doroshenko, et al
 - 5,420,425 05/30/1995 Bier, et al
 - 5,789,747 08/04/1998 Kato, et al
 - 3,937,955 02/10/1976 Comisarow, et al
 - 4,755,670 07/05/1988 Syka, et al
 - 6,406,921 06/18/2002 Wagner, et al
-
- 20020110933A1 08/15/2002 Wagner, et al
 - 20020102617 08/01/2002 MacBeath, et al
 - WO 00/54046 A2 09/14/2000 Hui Ge
 - WO 00/54046 A3 09/14/2000 Hui Ge
-
- Hanash, Electrophoresis 21:1202 (2002) Biomedical Applications of Two-Dimensional Electrophoresis Using Immobilized pH Gradients:
 - Patterson, Physiol. Genomics 2:59 (2000)
 - Ayala, et al., App. Biochem. biotech. 69:11 (1998) Use Of Rotofor Preparative Isoelectrofusing Cell In Proteins Purification Procedure
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 - Opiteck, et al., Anal. Biochem. 258:344 (1998) Comprehensive Two-Dimensional High-Performance Liquid Chromatography for the Isolation of Overexpressed Proteins and Proteome Mapping.

- Nilsson, et al., Rap Comm. Mass. Spec., 11:610 (1997) Isolation And Characterization of Proteins From Human Lymphocyte Nuclei Using Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry And Post-Source Decay Analysis
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- Wall, et al., Anal. Chem., 71:3894 (1999) Rapid Profiling Of Induced Proteins In Bacteria Using MALDI-TOF Mass Spectrometric Detection Of Nonporous RP HPLC-Separated Whole Cell Lysates.
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This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

Dated: June 19, 2006



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PTO/SB/08A (08-03)

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) | | Complete if Known | |
| | | Application Number | 10/686,417 |
| | | Filing Date | 10/15/2003 |
| | | First Named Inventor | Samir Hanash, et al |
| | | Art Unit | |
| Examiner Name | | | |
| Attorney Docket Number | UM-08410 | | |
| Sheet | 1 | of | 2 |

| U. S. PATENT DOCUMENTS | | | | | |
|------------------------|-----------------------|--|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number-Kind Code ² (if known) | | | |
| | 1 | US- 6,387,707 | 05/14/2002 | Seul, et al | Whole Document |
| | 2 | US- 6,328,869 | 12/11/2001 | Ogle | Whole Document |
| | 3 | US- 6,328,868 | 12/11/2001 | Weber | Whole Document |
| | 4 | US- 6,387,628 | 05/14/2002 | Little, et al | Whole Document |
| | 5 | US- 6,281,493 | 08/28/2001 | Vestal, et al | Whole Document |
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| | 11 | US- 5,789,747 | 08/04/1998 | Kato, et al | Whole Document |
| | 12 | US- 3,937,955 | 02/10/1976 | Comisarow, et al | Whole Document |
| | 13 | US- 4,755,670 | 07/05/1988 | Syka, et al | Whole Document |
| | 14 | US- 6,406,921 | 06/18/2002 | Wagner, et al | Whole Document |
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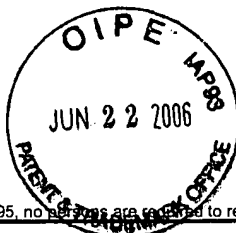
| FOREIGN PATENT DOCUMENTS | | | | | | |
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| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear | T ⁶ |
| | | Country Code ³ Number ⁴ Kind Code ⁵ (if known) | | | | |
| | 15 | 20020110933A1 | 08/15/2002 | Wagner, et al | Whole Document | |
| | 16 | 20020102617 | 08/01/2002 | MacBeath, et al | Whole Document | |
| | 17 | WO 01/68671 | 09/20/2001 | Church | Whole Document | |
| | 18 | WO 00/54046 | 09/14/2000 | Hui Ge | Whole Document | |
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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| | |
|------------------------|---------------------|
| Application Number | 10/686,417 |
| Filing Date | 10/15/2003 |
| First Named Inventor | Samir Hanish, et al |
| Art Unit | 1641 |
| Examiner Name | Yang |
| Attorney Docket Number | UM-08410 |

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| Sheet | 2 | of | 2 |
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NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|--------------------|-----------------------|--|----------------|
| | 19 | Hanash, Electrophoresis 21:1202 (2002) Biomedical Applications of Two-Dimensional Electrophoresis Using Immobilized pH Gradients: Current Status. | |
| | 20 | Patterson, Physiol. Genomics 2:59 (2000) Mass spectrometry and proteomics | |
| | 21 | Ayala, et al., App. Biochem. biotech. 69:11 (1998) Use Of Rotofor Preparative Isoelectrofusing Cell In Proteins Purification Procedure | |
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